CLAIM AMENDMENTS

1. (currently amended) An isolated genomic ~~polynucleotide~~nucleic acid molecule, said ~~polynucleotide~~ nucleic acid molecule obtainable from human chromosome 7 having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a ~~polynucleotide~~ nucleic acid molecule encoding a polypeptide selected from the group consisting of human SNARE YKT6 depicted in SEQ ID NO:1, human ~~liver~~ glucokinase depicted in SEQ ID NO:2, human adipocyte enhancer binding protein 1 depicted in SEQ ID NO:3 and DNA directed 50kD regulatory subunit (POLD2) depicted in SEQ ID NO:4 and variants thereof;

~~(c)~~a ~~polynucleotide~~ nucleic acid molecule selected from the group consisting of SEQ ID NO:5 which encodes human SNARE YKT6 depicted in SEQ ID NO:1, SEQ ID NO:6 which encodes human ~~liver~~ glucokinase depicted in SEQ ID NO:2, SEQ ID NO:8 which encodes human adipocyte enhancer binding protein 1 depicted in SEQ ID NO:3 and SEQ ID NO:7 which encodes DNA directed 50kD regulatory subunit (POLD2) depicted in SEQ ID NO:4 and variants thereof~~;~~

(c) a nucleic acid molecule extending from the 5'-end of SEQ ID NO:5 to the 3'-end of SEQ ID NO:8 that comprises the contiguous coding sequences for SNARE YKT6, glucokinase, POLD2 and the adipocyte enhancer binding protein 1;

~~(c) a polynucleotide which is a variant of SEQ ID NOS:5, 6, 7, or 8;~~

~~(d) a polynucleotide which is an allelic variant of SEQ ID NOS:5, 6, 7, or 8;~~

~~(e) a polynucleotide which encodes a variant of SEQ ID NOS:1,2, 3, or 4;~~

(~~f~~d) a ~~polynucleotide~~ nucleic acid molecule which hybridizes to any one of the polynucleotides specified in (a)-(~~e~~c)

(e) a ~~polynucleotide~~ nucleic acid molecule which is a reverse complement of the polynucleotides specified in (a)-(~~f~~c);

2. (currently amended) A nucleic acid construct comprising the ~~polynucleotide~~ nucleic acid molecule of claim 1.

3. (currently amended) An expression vector comprising the ~~polynucleotide~~ nucleic acid molecule of claim 1.

4. (original) A recombinant host cell comprising the nucleic acid ~~construct~~ molecule of claim 1~~2~~.

Claim 5 (cancelled)

6. (currently amended) A method for obtaining a polypeptide encoded by a ~~polynucleotide~~ nucleic acid molecule obtainable from human chromosome 7, said polypeptide selected from the group consisting of human SNARE YKT6, human ~~liver~~ glucokinase, human adipocyte enhancer binding protein 1 and DNA directed 50kD regulatory subunit (POLD2) comprising:

(a) culturing the recombinant host cell of claim ~~5~~4 under conditions that provide for the expression of said polypeptide and

(b) recovering said expressed polypeptide.

7. (currently amended) A method for preparing an antibody specific to a polypeptide selected from the group consisting of human SNARE YKT6, human ~~liver~~ glucokinase, human adipocyte enhancer binding protein 1 and DNA directed 50kD regulatory subunit (POLD2) comprising:

(a) obtaining a polypeptide according to the method of claim 6;

(b) optionally conjugating said polypeptide to a carrier protein;

(c) immunizing a host animal with said polypeptide or polypeptide-carrier protein conjugate of step (b) with an adjuvant and

(d) obtaining antibody from said immunized host animal.

8. (currently amended) An ~~antisense oligonucleotide or mimetic to an isolated polynucleotide~~ isolated nucleic acid molecule of at least 15 nucleotides or mimetic which hybridizes at high stringency to a non-coding region ~~of~~ specific to ~~SEQ ID NOS:5, 6, 7 or 8~~the nucleic acid molecule of claim 1, which non-coding region is selected from the group consisting of an intron, a splice junction, a 5' non-coding region, a transcription factor binding region, an expression control region and a 3' non-coding region.

9. (currently amended) A method of diagnosing a pathological condition or susceptibility to a pathological condition in a subject comprising:

~~(a) determining the presence or absence of a mutation in the polynucleotide of claim 1 and~~

~~(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation~~

(a) isolating genomic DNA from a subject;

(b) determining the presence or absence of a variant in said genomic DNA using the nucleic acid molecule of claim 8 and

(c) ~~,~~diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said variant.

10. (currently amended) A composition comprising the ~~polynucleotide~~ nucleic acid molecule of claim 1 and a carrier.

11. (currently amended) A composition comprising the ~~antisense oligonucleotide~~nucleic acid molecule of claim 8 and a carrier.

12. (original) A method for preventing, treating or ameliorating a medical condition, comprising administering to a subject an amount of the composition of claim 10 effective to prevent, treat or ameliorate said medical condition.

13. (original) A method for preventing, treating or ameliorating a medical condition, comprising administering to a subject an amount of the composition of claim 11 effective to prevent, treat or ameliorate said medical condition.

14. (currently amended) A kit comprising the ~~polynucleotide~~ nucleic acid molecule of claim ~~1~~8.

15. (original) The kit according to claim 14, in which the polynucleotide is labeled with a detectable substance.

16. (currently amended) ~~A kit comprising the antisense oligonucleotide or mimetic of claim 8.~~The kit according to claim 14, which comprises a plurality of nucleic acid molecules.

Claims 17-22 are cancelled.

23. (new) A method for modulating levels of human SNARE YKT6, human glucokinase, human adipocyte enhancer binding protein 1 or DNA directed 50kD regulatory subunit (POLD2) in a subject in need thereof comprising administering to said subject an amount of the nucleic acid molecule of claim 1 effective to modulate said human SNARE YKT6, human glucokinase, human adipocyte enhancer binding protein 1 or DNA directed 50kD regulatory subunit (POLD2) levels.

24. (new) A method for modulating levels of human SNARE YKT6, human glucokinase, human adipocyte enhancer binding protein 1 or DNA directed 50kD regulatory subunit (POLD2) in a subject in need thereof comprising administering to said subject an amount of the nucleic acid molecule of claim 8 effective to modulate said human SNARE YKT6, human glucokinase, human adipocyte enhancer binding protein 1 or DNA directed 50kD regulatory subunit (POLD2) levels.

25. (new) A method of identifying variants of SEQ ID NOS: 5, 6, 7 or 8 comprising
(a) isolating genomic DNA from a subject and
(b) determining the presence or absence of a variant in said genomic DNA using the nucleic acid molecule of claim 8.

26. (new) A method for detecting the presence or absence of a non-coding nucleic acid sequence specific to the nucleic acid molecule of claim 1 in a sample, said method comprising contacting the sample with a nucleic acid molecule of at least 15 nucleotides which hybridizes at high stringency to a non-coding region specific to the nucleic acid molecule of claim 1, which non-coding region is selected from the group consisting of an intron, a splice junction, a 5' non-coding region, a transcription factor binding region, an expression control region and a 3' non-coding region.